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Setting Standards and Training

To reduce the negative environmental impacts of Federal facilities, we must change the various standards, operational procedures, and other documents that define how these facilities are designed and managed. To ensure that these modified standards are followed, a comprehensive training program to disseminate and explain them must be implemented. The contents of this guide can be used as material for this training and can be supplemented with a wide range of government, private-sector, and academic information resources concerning environmental issues as they relate to the design and maintenance of the built environment.

Setting Standards

Leadership by example is imperative to inspire the deep changes required to shift to low consumption and efficient utilization of resources, low waste, and the creation of healthy interior environments. The organizational culture must be transformed to one that has fully internalized the benefits of this shift. A change of this magnitude demands firm commitment and leadership from senior management; consequently, it is imperative that management be educated and informed, permitting a top-down change in culture.

Facility managers and others are required to follow a wide array of standards and mandatory regulations from various authorities. There are also a number of suggested green standards and rating systems. It is often difficult to grasp the wide range of requirements and potential solutions available. Even more critical and difficult are the financial issues associated with change. Only an integrated design team—facility managers, planners, architects, engineers, and others—can collectively create an overall blueprint and critical path for an effective, resource-efficient organization. Appropriate standards must be set that not only meet and integrate the requirements of existing standards but

also “raise the bar” still higher whenever possible. In addition, “champions” must be identified within the team that will be responsible for specific goals and objectives. In order to meet and maintain the standards set, a continual and consistent feedback loop of priorities, evaluation, and course corrections is needed from this integrated design team.

Section 1.3 of this guide outlines the major Federal laws and Executive Orders that require the reduction of environmental impacts by Federal facilities. These should be of prime importance when writing standards for facilities. Coordinating Federal laws and Executive Orders with assessment tools and green building rating systems would be extremely informative and useful. Facility managers should also be aware of the voluntary LEED™ (Leadership in Energy and Environmental Design) Building Rating System developed by the U.S. Green Building Council. A number of Federal agencies, including the Navy, are adopting LEED as a target for environmental performance of new and renovated facilities. Through the LEED program, commercial buildings receive points for various energy and environmental features—ranging from energy performance and water efficiency to the control of light pollution, protection of local ecosystems, and use of certified well-managed wood.

Training

High-quality training programs are key to changing the behavior of the wide range of people involved in the design and management of Federal facilities. The training must be interesting, fun, relevant, up-to-date, and tailored to the specific audience. It should be action-oriented and hands-on whenever possible. The participants should be from diverse disciplines, and the training should emphasize integrated design and an integrated team approach. If the training is successful, participants will take the information and put it into action—incorporating sustainable design concepts into everyday choices.

As is the case with many other issues, the quality and quantity of the training provided often depends on funds. In any organization’s budgeting process, setting aside resources for education and training is essential, because the success of the organization depends on its employees having the most up-to-date information regarding their particular work, trade, or discipline. It pays to find the best delivery system possible,

whether it be from the government, private organizations specializing in training, industry, universities, or professional associations.

For training to be effective it must have the backing of top management, it must be delivered periodically to continually reinforce high-priority ideas, and it must always be relevant. The best trainers are not only highly knowledgeable but also creative and imaginative. Expert trainers maintain high interest levels, and their information is more likely to be retained. Here are several key components for effective sustainable design training:

Videotapes make training more interesting and varied at minimal cost. The American Institute of Architects offers videotapes on specific topics, such as energy, site planning, and materials. Videotapes that give an overview of sustainable design, such as “Greening the Red, White, and Blue” from the Department of Defense, are highly effective, not only for training but also for management briefings.

Endorsement statements on sustainable design by high-ranking officials are effective and inspiring. These statements can either be part of videotapes shown to participants or statements given in the training introductions.

Case studies are valuable training aids. A combination of diverse, in-depth case studies that encompass a wide variety of specific concepts show how these concepts can be implemented in real-world situations.

Process issues: Current design and development processes of Federal facilities should be reviewed in an attempt to locate opportunities and obstacles related to sustainable design. Ways to implement an integrated team approach should also be sought. Establishing a clear process outline during training, noting “points of opportunity and obstacles,” will allow participants to create realistic plans of action for sustainable design.

Hands-on exercises focusing on realistic situations provide participants with practical experience that can easily be implemented back at their offices.

Resources and tools: Introducing Web sites, magazines, books, journals, technical publications, and CD-ROMs during training can provide useful follow-up information for further study. In addition, providing information about green building rating systems and assessment tools such as LEED is extremely important.

References

Introduction to Federal Energy Management (CD-ROM), Federal Energy Management Program, U.S. Department of Energy, 1997 (CD-ROM of FEMP case studies also available).

Department of Defense Sustainable Training Regime, a two-and-a-half-day course with workbook and video; (757) 322-4200.

“Greening the Red, White, and Blue” video and Training Program for DOD; www.defenselink.mil/.

Building Connections Video Teleconference Series (four topics: Energy, Materials, Sustainable Communities, and Case Studies). Available from The American Institute of Architects, Washington, DC; (888) 272-4115; www.e-architect.com/pia/pubs/cote.asp.

“The Story of Pennsylvania’s First Green Building: DEP South Central Office Building”, video, 1999. Available free from the Pennsylvania Department of Environmental Protection, P.O. Box 2063, Harrisburg, PA 17105; (717) 787-4190; www.dep.state.pa.us.

Contacts

Copies of the *FEMP Training Catalog* are available from the Help Desk, (800) DOE-EREC (363-3732); various training resources, including a schedule of upcoming FEMP courses, are available online at www.eren.doe.gov/femp/resources/training/femptraining.html.

FEMP’s Training Course Locator System, (202) 586-5772, provides information about training offered by other government agencies, universities, and private-sector organizations.

U.S. Green Building Council, 1015 18th Street, NW, Suite 805, Washington, DC 20036; (202) 828-7422; www.usgbc.org.